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<p>(21) International Application Number: <b>PCT/EP98/00367</b></p> <p>(22) International Filing Date: <b>23 January 1998 (23.01.98)</b></p> <p>(30) Priority Data: <b>97101019.4</b> <b>23 January 1997 (23.01.97)</b> <b>EP</b> (34) Countries for which the regional or international application was filed: <b>DE et al.</b></p> <p>(71)(72) Applicants and Inventors: <b>WAGNER, Hermann</b> [DE/DE]; Kaagangerstrasse 36, D-82279 Eching (DE). <b>LIPFORD, Grayson, B.</b> [US/DE]; Innere Wiener Strasse 7a, D-81667 München (DE). <b>HEEG, Klaus</b> [DE/DE]; Baumgartenstrasse 34, D-83607 Holzkirchen (DE).</p> <p>(74) Agent: <b>VOSSIUS &amp; PARTNER GBR</b>; P.O. Box 86 07 67, D-81634 München (DE).</p>		<p>(81) Designated States: <b>AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO</b> patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).</p> <p><b>Published</b> <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i></p>
<p>(54) Title: <b>PHARMACEUTICAL COMPOSITIONS COMPRISING A POLYNUCLEOTIDE AND OPTIONALLY AN ANTIGEN ESPECIALLY FOR VACCINATION</b></p>		
<p>(57) Abstract</p> <p>The present invention relates to pharmaceutical compositions comprising at least one fragment of a polynucleotide, preferably at least one antigen, and optionally a pharmaceutically acceptable carrier and/or diluent. In accordance with the present invention was found that the introduction of the pharmaceutical composition into vertebrates will achieve regulation of growth, induction of cellular transcription and translation, protein synthesis, protein expression or protein secretion. The pharmaceutical compositions are useful in vaccination protocols but also in any other therapeutic situation in which immunomodulation is of benefit, such as sub-optimal immune responses, reaction to pathogens, tolerance or autoimmunity.</p>		